SOME CLASSES OF ANALYTIC FUNCTIONS RELATED WITH FUNCTIONS OF BOUNDED RADIUS ROTATION WITH RESPECT TO SYMMETRICAL POINTS

KHALIDA INAYAT NOOR AND SAIMA MUSTAFA

Abstract. In this paper, we introduce a class $R_k^s(\gamma)$ of analytic functions of bounded radius rotation with respect to symmetrical points and study some of its basic properties. Using this concept, two other classes $T_k^s(\delta,\gamma)$, $K_k^s(\delta,\gamma)$ are also defined. We study coefficient results, arc-length and radius problems for these classes.

Mathematics subject classification (2000): 30C45, 30C50.

Keywords and phrases: starlike, bounded radius rotation, symmetrical points, arc-length, coefficient problems.

REFERENCES

- D. A. BRANNAN, On functions of bounded boundary rotation 1, Proc. Edingburgh Math. Soc., 16 (1968/69), 339–347.
- [2] A. W. GOODMAN, On close-to-convex functions of higher order, Ann. Univ. Sci. Buda Eotous Sect. Math., 25 (1972), 17–30.
- [3] R. J. LIBERA, Some classes of regular univalent functions, Proc. Amer. Math. Soc., 16 (1965), 755– 758.
- [4] S. S. MILLER, Differential inequalities and Caratheodory functions, Bull. Amer. Math. Soc., 81 (1975), 79–81.
- [5] K. INAYAT NOOR, On subclasses of close-to-convex functions of higher order, Inter. J. Math. Math. Sci., 15 (1992), 279–290.
- [6] B. PINCHUK, Functions with bounded boundary rotation, Isr. J. Math., 10 (1971), 7-16.
- [7] K. SAKAGUCHI, ON A CERTAIN UNIVALENT MAPPING, J. Math. Soc. Japan, 11 (1959), 72–75.

